

DELTAFLOW low-impact drill-in fluid

Flexible reservoir fluid system designed for better production rates

Drilling reactive clays with water-based muds (WBMs) may be problematic and pore pressure, fracture gradient, and complex geometry can create a narrow operating window when drilling extended, shale reservoir sections. Additionally, excessive surge pressures, pressure spikes due to pump initiation pressures, complicated circulation management, and the inability to control drilling parameters can result in the loss of well integrity and stability—damaging the reservoir and limiting your ultimate recovery.

The Baker Hughes DELTAFLOW™ low-impact drill-in fluid (DIF) is designed for drill-in applications in reservoirs that contain shale or other reactive clays which may prove problematic if drilled with a water-based mud (WBM). The system represents an intelligent fluids solution designed to extend the critical drilling window in these reservoirs. This next-generation invert emulsion DIF provides a flat rheological profile while generating an ultra-thin filter cake which is easily removed and lifted off with minimum pressure. Formations sensitive to any fluid or particle invasion, such as depleted or low formation-pressure reservoirs, should also be considered as good candidates for DELTAFLOW™ DIF.

The DELTAFLOW fluid optimizes hole cleaning using proprietary technology to maintain viscosity across a wide range of temperatures and pressure conditions. It also minimizes sag by keeping solids suspended even when pumps are off. Moreover, DELTAFLOW fluid prevents pressure spikes at startup and surge pressure during runs to avoid fractures and mud losses.

The DELTAFLOW DIF reduces drilling risks so that operators can optimize drilling, tripping, and reaming speeds—saving rig times and associated costs. The system's low ECD design and non-damaging ultra-thin filter cake generated by the DELTAFLOW system provides the best scenario for maintaining stability and preventing losses during reservoir drilling and completion operations.

The DELTAFLOW DIF system minimizes impact and formation damage while maximizing the flow and productivity of the reservoir. Contact your Baker Hughes representative for more information.

Applications

- Narrow operating windows
- Depleted or low formation pressures
- Reservoirs with shale or other reactive clays

Benefits

- Minimizes formation damage while maximizing productivity
- Protects the formation against pressure spikes and surge pressure
- Provides effective and reliable navigation through narrow pressure windows
- Reduces risks and associated costs during reservoir drilling
- Improves hole cleaning, flow rate, and ROP
- Remains sag-resistant and suspends cuttings during operational pauses
- Allows easy cleanup using the MICRO-WASH™ invert emulsion drill-in fluid filter cake breaker